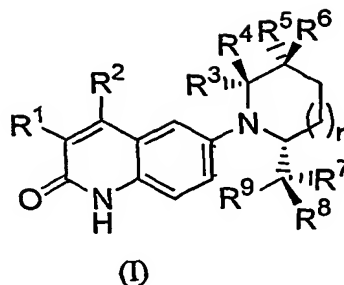


What is claimed is:

1. A compound having the formula:



wherein:

R¹ is hydrogen, F, Cl, or C₁-C₃ aliphatic;

R² is selected from the group of hydrogen, F, Cl, Br, C₁-C₄ aliphatic, C₁-C₄ haloaliphatic, and C₁-C₄ heteroaliphatic;

R³ and R⁴ each independently is selected from the group of hydrogen, C₁-C₄ aliphatic, C₁-C₄ haloaliphatic, C₁-C₄ heteroaliphatic, optionally substituted aryl and heteroaryl;

R⁵ and R⁶ each independently is selected from the group of hydrogen, F, Cl, OR¹⁰, C₁-C₄ aliphatic, C₁-C₄ haloaliphatic, and C₁-C₄ heteroaliphatic;

R⁷ and R⁸ each independently is selected from the group of hydrogen, F, Cl, C₁-C₄ aliphatic, C₁-C₄ haloaliphatic, and C₁-C₄ heteroaliphatic; or

R⁷ and R⁸ taken together form a carbonyl group;

R⁹ is selected from the group of halogen, OR¹⁰, SR¹⁰, NR¹⁰R¹¹, C₁-C₄ haloaliphatic, C₁-C₄ heteroaliphatic, and C₁-C₄ heterohaloaliphatic;

R¹⁰ and R¹¹ each independently is selected from the group of hydrogen, C₁-C₄ aliphatic, phenyl, and benzyl; and

n = 0 or 1.

2. A compound according to claim 1, wherein:

R¹ is hydrogen, F, or Cl;

R² is selected from the group of F, Cl, Br, C₁-C₄ alkyl, and C₁-C₄ haloalkyl;

R³ and R⁴ each independently is selected from the group of hydrogen, C₁-C₄ alkyl, C₁-C₄ haloalkyl, and optionally substituted aryl;

R⁵ and R⁶ each independently is selected from the group of hydrogen, F, Cl, OR¹⁰, C₁-C₄ alkyl, and C₁-C₄ haloalkyl;

R⁷ and R⁸ each independently is selected from the group of hydrogen, F, Cl, C₁-C₄ alkyl, and C₁-C₄ haloalkyl;

R⁹ is selected from the group of halogen, OR¹⁰, C₁-C₄ haloalkyl, C₁-C₄ heteroalkyl, and C₁-C₄ heterohaloalkyl;

R¹⁰ is hydrogen; and

n = 0 or 1.

3. A compound according to claim 1, wherein:

R¹ is hydrogen;

R² is selected from the group of Cl, Br, CH₃, C₂H₅, CF₃, C₂F₅, and CF₂Cl;

R³ and R⁴ each independently is selected from the group of hydrogen, C₁-C₄ alkyl, C₁-C₄ haloalkyl, C₁-C₄ heteroalkyl, and optionally substituted aryl;

R⁵ and R⁶ each independently is selected from the group of hydrogen, F, Cl, OR¹⁰, C₁-C₄ alkyl, C₁-C₄ haloalkyl, and C₁-C₄ heteroalkyl;

R⁷ and R⁸ each independently is selected from the group of hydrogen, F, Cl, C₁-C₄ alkyl, C₁-C₄ haloalkyl, and C₁-C₄ heteroalkyl;

R⁹ is selected from the group of halogen, OR¹⁰, C₁-C₄ haloalkyl, C₁-C₄ heteroalkyl, and C₁-C₄ heterohaloalkyl;

R¹⁰ is hydrogen or C₁-C₄ alkyl; and

n = 0 or 1.

4. A compound according to claim 1, wherein:

R¹ is hydrogen, F, Cl, or C₁-C₃ alkyl;

R² is selected from the group of hydrogen, F, Cl, Br, C₁-C₄ alkyl, C₁-C₄ haloalkyl, and C₁-C₄ heteroalkyl;

R³ and R⁴ each independently is selected from the group of hydrogen, C₁-C₄ alkyl, C₁-C₄ haloalkyl, C₁-C₄ heteroalkyl, optionally substituted aryl and heteroaryl;

R⁵ and R⁶ each is hydrogen;

R⁷ and R⁸ each independently is hydrogen, C₁-C₄ alkyl or C₁-C₄ haloalkyl;

R⁹ is OR¹⁰;

R¹⁰ is hydrogen or C₁-C₄ alkyl; and

n = 0.

5. A compound according to claim 4, wherein:

R¹ is hydrogen;

R² is selected from the group of Cl, CH₃, C₂H₅, CH₂F, CHF₂, CF₃, C₂F₅, and CF₂Cl;

R³ and R⁴ each independently is selected from the group of hydrogen and C₁-C₄ alkyl;

R⁷ and R⁸ each independently is selected from the group of hydrogen, CH₃, C₂H₅, CF₃, C₂F₅ and CF₂Cl; and

R⁹ is OH.

6. A compound according to claim 5, wherein:

R² is selected from the group of Cl, CH₂F, CHF₂, CF₃, C₂F₅ and CF₂Cl;

R³ and R⁴ each independently is hydrogen or C₁-C₂ alkyl; and

R⁷ and R⁸ each independently is selected from the group of hydrogen, CH₃, CF₃, C₂F₅ and CF₂Cl.

7. A compound according to claim 6, wherein:

R² is Cl, CH₂F, CHF₂, CF₃ or CF₂Cl;

R³ and R⁴ each is hydrogen or CH₃; and

R⁷ and R⁸ each independently is hydrogen, CH₃, CF₃ or CF₂Cl.

8. A compound according to claim 7, wherein:

R² is Cl, CH₂F, CHF₂, or CF₃;

R³ and R⁴ each is hydrogen or CH₃; and

R⁷ and R⁸ each independently is hydrogen, CH₃ or CF₃.

9. A compound according to claim 1, wherein the compound is an androgen receptor modulator.

10. A compound according to claim 1 or 2, wherein the compound is an androgen receptor antagonist.

11. A compound according claim 1 or 2, wherein the compound is an androgen receptor agonist.

12. A compound according claim 1 or 2, wherein the compound is an androgen receptor partial agonist.

13. A compound according to claim 1, wherein the compound is selected from the group of:

(*R*)-6-(2-(2,2,2-Trifluoroethyl)-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 101);

(*R*)-6-(2-Phenylthiomethyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 102);

(*R*)-6-(2-(2,2,2-Trifluoroethyl)-1-piperidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 103);

(*R*)-6-(2-Benzylloxymethyl-1-piperidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 104);

(*R*)-6-(2-Diethylaminomethyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 105);

6-(2(*R*)-Hydroxymethyl-5(*S*)-methyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 106);

6-(2(*R*)-Fluoromethyl-5(*R*)-methyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 107);

6-(2(*R*)-Fluoromethyl-5(*S*)-methyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 108);

6-(2(*R*)-Difluoromethyl-5(*R*)-methyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 109);

6-(2(*R*)-Fluoromethyl-5(*S*)-methyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 110);

6-(2(*R*)-(1(*R*)-Hydroxy-2,2,2-trifluoroethyl)-5(*S*)-methyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 111);

6-(2(*R*)-(1(*S*)-Hydroxy-2,2,2-trifluoroethyl)-5(*S*)-methyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 112);

6-(2(*R*)-(1(*S*)-Hydroxy-2,2,2-trifluoroethyl)-5(*R*)-methyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 113);

6-(2(*R*)-(1(*R*)-Hydroxy-2,2,2-trifluoroethyl)-5(*R*)-methyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 114);

6-(2(*R*)-(2,2,2-Trifluoroethyl)-5(*R*)-methyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 115);

6-(2(*R*)-(1(*S*)-Hydroxy-2,2,2-trifluoroethyl)-4(*R*)-hydroxy-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 116);

6-(2(*R*)-(1(*R*)-Hydroxy-2,2,2-trifluoroethyl)-4(*R*)-hydroxy-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 117);

6-(2(*R*)-(1(*S*)-Fluoro-2,2,2-trifluoroethyl)-4(*S*)-fluoro-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 118);

6-(2(*R*)-(1(*R*)-Fluoro-2,2,2-trifluoroethyl)-4(*S*)-fluoro-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 119);

6-(2(*R*)-(1(*S*)-Hydroxy-2,2,2-trifluoroethyl)-4(*R*)-methyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 120);

6-(2(*R*)-(1(*R*)-Hydroxy-2,2,2-trifluoroethyl)-4(*R*)-methyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 121);

6-(2(*R*)-(1(*S*)-Hydroxy-2,2,2-trifluoroethyl)-4(*S*)-methyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 122);

6-(2(*R*)-(1(*R*)-Hydroxy-2,2,2-trifluoroethyl)-4(*S*)-methyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 123);

6-(2(*R*)-(1(*S*)-Hydroxy-2,2,2-trifluoroethyl)-4(*R*)-methoxy-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 124);

6-(2(*R*)-(1(*R*)-Hydroxy-2,2,2-trifluoroethyl)-4(*R*)-methoxy-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 125);

6-(2(*R*)-(1(*R*)-Hydroxy-2,2,2-trifluoroethyl)-4(*S*)-methoxy-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 126);

6-(2(*R*)-(1(*S*)-Hydroxy-2,2,2-trifluoroethyl)-4(*S*)-methoxy-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 127);

4-Chloro-6-(2(*R*)-(1(*S*)-hydroxy-2,2,2-trifluoroethyl)-5(*R*)-methyl-1-pyrrolidinyl)-2(1*H*)-quinolinone (Compound 128);

4-Chloro-6-(2(*R*)-(1(*R*)-hydroxy-2,2,2-trifluoroethyl)-5(*R*)-methyl-1-pyrrolidinyl)-2(1*H*)-quinolinone (Compound 129);

4-Chloro-6-(2(*R*)-(1(*S*)-hydroxy-2,2,2-trifluoroethyl)-1-pyrrolidinyl)-2(1*H*)-quinolinone (Compound 130);

4-Chloro-6-(2(*R*)-(1(*R*)-hydroxy-2,2,2-trifluoroethyl)-1-pyrrolidinyl)-2(1*H*)-quinolinone (Compound 131);

6-(2(*R*)-(1(*R*)-Hydroxy-1-methyl-2,2,2-trifluoroethyl)-5(*R*)-methyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 132);

6-(2(*R*)-(1(*S*)-Hydroxy-1-methyl-2,2,2-trifluoroethyl)-5(*R*)-methyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 133);

6-(2(*R*)-(1-Hydroxy-1-trifluoromethyl-2,2,2-trifluoroethyl)-5(*R*)-methyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 134);

6-(2(*R*)-(1(*R*)-Ethoxy-2,2,2-trifluoroethyl)-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 135);

6-(2(*R*)-(1(*R*)-Hydroxy-2,2,2-trifluoroethyl)-1-pyrrolidinyl)-4-propyl-2(1*H*)-quinolinone (Compound 136);

6-(2(*R*)-(1(*S*)-Hydroxy-2,2,2-trifluoroethyl)-1-pyrrolidinyl)-4-propyl-2(1*H*)-quinolinone (Compound 137);

6-(2(*R*)-(1(*S*)-Hydroxy-2,2,2-trifluoroethyl)-1-pyrrolidinyl)-4-ethyl-2(1*H*)-quinolinone (Compound 138);

6-(2(*R*)-(1(*R*)-Hydroxy-2,2,2-trifluoroethyl)-1-pyrrolidinyl)-4-ethyl-2(1*H*)-quinolinone (Compound 139);

6-(2(*R*)-Chloromethyl-5-(*R*)-methyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 140);

6-(2(*R*)-Chloromethyl-5-(*S*)-methyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 141);

6-(2(*R*)-(1(*S*)-Hydroxy-2,2,2-trifluoroethyl)-5(*S*)-phenyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 142);

6-(2(*R*)-(1(*R*)-Hydroxy-2,2,2-trifluoroethyl)-5(*S*)-phenyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 143);

6-(2(*R*)-(1(*S*)-Hydroxy-2,2,2-trifluoroethyl)-5,5-dimethyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 144);

6-(2(*R*)-(1(*R*)-Hydroxy-2,2,2-trifluoroethyl)-5,5-dimethyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 145);

6-(2(*R*)-(1(*S*)-Hydroxy-2,2,2-trifluoroethyl)-5(*R*)-phenyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 146);

6-(2(*R*)-(1(*R*)-Hydroxy-2,2,2-trifluoroethyl)-5(*R*)-phenyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 147);

6-(2(*R*)-(1(*R*),2-Dihydroxyethyl)-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 148);

6-(2(*R*)-(1(*S*),2-dihydroxyethyl)-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 149);

6-(2(*R*)-(1(*R*)-Hydroxybenzyl)-5(*S*)-methyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 150);

6-(2(*R*)-(1(*S*)-Hydroxybenzyl)-5(*R*)-methyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 151);

6-(2(*R*)-(1(*R*)-Hydroxybenzyl)-5(*R*)-methyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 152);

6-(2(*R*)-((2-1,3-Dithianyl)-1(*R*)-hydroxymethyl)-5(*R*)-methyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 153);

6-(2(*R*)-((2-1,3-Dithianyl)-1(*S*)-hydroxymethyl)-5(*R*)-methyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 154);

6-(2(*R*)-Difluoromethyl-5,5-dimethyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 155);

6-(2(*R*)-Fluoromethyl-5,5-dimethyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 156);

6-(2(*R*)-Hydroxymethyl-5,5-dimethyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 157);

6-(2(*R*)-Hydroxymethyl-1-piperidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 158);

6-(2(*R*)-(1(*S*)-Hydroxyethyl-1-piperidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 159);

6-(2(*R*)-(1(*R*)-Hydroxyethyl-1-piperidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 160);

6-(2(*R*)-Trifluoroacetyl-1-piperidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 161);

6-(2(*R*)-(1(*S*)-Hydroxypentyl-1-piperidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 162);

6-(2(*R*)-(1(*R*)-Hydroxypentyl-1-piperidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 163);

6-(2(*R*)-(1(*R*)-Hydroxyethyl)-5(*R*)-methyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 164);

6-(2(*R*)-(1-Hydroxy-1-methylethyl)-5(*R*)-methyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 165);

6-(2(*R*)-(1(*S*)-Hydroxy-1-cyclopropylmethyl)-5(*R*)-methyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 166);

6-(2(*R*)-(1(*R*)-Hydroxy-1-cyclopropylmethyl)-5(*R*)-methyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 167);

6-(2(*R*)-(1(*S*)-Hydroxypropyl)-5(*R*)-methyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 168);

6-(2(*R*)-(1(*R*)-Hydroxypropyl)-5(*S*)-methyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 169);

6-(2(*R*)-(1(*R*)-Hydroxypropyl)-5(*R*)-methyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 170);

6-(2(*R*)-(1(*S*)-Hydroxypropyl)-5(*S*)-methyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 171);

6-(2(*R*)-(1(*R*)-Hydroxy-2-methylpropyl)-5(*R*)-methyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 172);

6-(2(*R*)-(1(*R*)-Hydroxy-2-acetoxyethyl)-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 173);

6-(2(*R*)-(1(*R*)-Hydroxy-2-chloroethyl)-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 174);

6-(2(*R*)-(2-Hydroxyethyl)-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 175);

6-(2(*R*)-(2-Oxoethyl)-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 176);

6-(2(*R*)-Acetyloxymethyl-6(*R*)-methyl-1-piperidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 177);

6-(2(*R*)-(1(*R*)-Chloro-2-hydroxymethyl)-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 178);

6-(2(*R*)-Hydroxymethyl-6(*R*)-methyl-1-piperidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 179);

6-(2(*R*)-(1(*R*)-Hydroxy-2,2,2-trifluoroethyl)-6(*R*)-methyl-1-piperidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 180);

6-(2(*R*)-(1(*S*)-Hydroxy-2,2,2-trifluoroethyl)-5(*R*)-methyl-1-pyrrolidinyl)-4-chlorodifluoromethyl-2(1*H*)-quinolinone (Compound 181);

6-(2(*R*)-(1(*R*)-Hydroxy-2,2,2-trifluoroethyl)-5(*R*)-methyl-1-pyrrolidinyl)-4-chlorodifluoromethyl-2(1*H*)-quinolinone (Compound 182);

6-(2(*R*)-(1(*S*)-Hydroxy-2,2,2-trifluoroethyl)-5(*S*)-methyl-1-pyrrolidinyl)-4-chlorodifluoromethyl-2(1*H*)-quinolinone (Compound 183);

6-(2(*R*)-(2(*S*)-Hydroxy-3,3,3-trifluoropropyl)-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 184);

6-(2(*R*)-(2(*R*)-hydroxy-3,3,3-trifluoropropyl)-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 185);

6-(2(*R*)-Acetyloxymethyl-6(*R*)-methyl-1-piperidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 186);

6-(2(*R*)-Hydroxyethyl-5(*R*)-methyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 187);

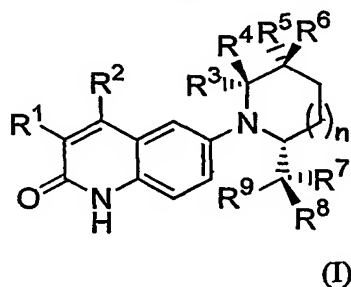
6-(2(*R*)-Hydroxyethyl-5(*S*)-methyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 188);

6-(2(*R*)-Acetyloxyethyl-5(*R*)-methyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 189);

6-(2(*R*)-(1(*S*)-Hydroxy-2,2,2-trifluoroethyl)-4(*S*)-fluoro-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 190); and

6-(2(*R*)-(1(*R*)-Hydroxy-2,2,2-trifluoroethyl)-4(*S*)-fluoro-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 191).

14. A pharmaceutical composition comprising a pharmaceutically acceptable carrier and a compound of the formula:



wherein:

R^1 is hydrogen, F, Cl, or C_1 - C_3 aliphatic;

R^2 is selected from the group of hydrogen, F, Cl, Br, C_1 - C_4 aliphatic, C_1 - C_4 haloaliphatic, and C_1 - C_4 heteroaliphatic;

R^3 and R^4 each independently is selected from the group of hydrogen, C_1 - C_4 aliphatic, C_1 - C_4 haloaliphatic, C_1 - C_4 heteroaliphatic, optionally substituted aryl and heteroaryl;

R^5 and R^6 each independently is selected from the group of hydrogen, F, Cl, OR^{10} , C_1 - C_4 aliphatic, C_1 - C_4 haloaliphatic, and C_1 - C_4 heteroaliphatic;

R^7 and R^8 each independently is selected from the group of hydrogen, F, Cl, C_1 - C_4 aliphatic, C_1 - C_4 haloaliphatic, and C_1 - C_4 heteroaliphatic; or

R^7 and R^8 taken together form a carbonyl group;

R^9 is selected from the group of halogen, OR^{10} , SR^{10} , $NR^{10}R^{11}$, C_1 - C_4 haloaliphatic, C_1 - C_4 heteroaliphatic, and C_1 - C_4 heterohaloaliphatic;

R^{10} and R^{11} each independently is selected from the group of hydrogen, C_1 - C_4 aliphatic, phenyl, and benzyl; and

n = 0 or 1.

15. A pharmaceutical composition comprising a pharmaceutically acceptable carrier and a compound according to claim 2.

16. A pharmaceutical composition comprising a pharmaceutically acceptable carrier and a compound according to claim 7.

17. A pharmaceutical composition comprising a pharmaceutically acceptable carrier and a compound according to claim 8.

18. A pharmaceutical composition according to any one of claims 14, 15, 16 and 17, wherein the compound is an androgen receptor modulator.

19. A pharmaceutical composition according to claim 18, wherein the compound is an androgen receptor antagonist.

20. A pharmaceutical composition according to claim 18, wherein the compound is an androgen receptor agonist.

21. A pharmaceutical composition according to claim 18, wherein the compound is an androgen receptor partial agonist.

22. A pharmaceutical composition according to claim 14, wherein the compound is selected from the group of:

(*R*)-6-(2-(2,2,2-Trifluoroethyl)-1-pyrrolidiny)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 101);

(*R*)-6-(2-Phenylthiomethyl-1-pyrrolidiny)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 102);

(*R*)-6-(2-(2,2,2-Trifluoroethyl)-1-piperidiny)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 103);

(*R*)-6-(2-Benzylloxymethyl-1-piperidiny)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 104);

(*R*)-6-(2-Diethylaminomethyl-1-pyrrolidiny)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 105);

6-(2(*R*)-Hydroxymethyl-5(*S*)-methyl-1-pyrrolidiny)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 106);

6-(2(*R*)-Fluoromethyl-5(*R*)-methyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 107);

6-(2(*R*)-Fluoromethyl-5(*S*)-methyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 108);

6-(2(*R*)-Difluoromethyl-5(*R*)-methyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 109);

6-(2(*R*)-Fluoromethyl-5(*S*)-methyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 110);

6-(2(*R*)-(1(*R*)-Hydroxy-2,2,2-trifluoroethyl)-5(*S*)-methyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 111);

6-(2(*R*)-(1(*S*)-Hydroxy-2,2,2-trifluoroethyl)-5(*S*)-methyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 112);

6-(2(*R*)-(1(*S*)-Hydroxy-2,2,2-trifluoroethyl)-5(*R*)-methyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 113);

6-(2(*R*)-(1(*R*)-Hydroxy-2,2,2-trifluoroethyl)-5(*R*)-methyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 114);

6-(2(*R*)-(2,2,2-Trifluoroethyl)-5(*R*)-methyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 115);

6-(2(*R*)-(1(*S*)-Hydroxy-2,2,2-trifluoroethyl)-4(*R*)-hydroxy-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 116);

6-(2(*R*)-(1(*R*)-Hydroxy-2,2,2-trifluoroethyl)-4(*R*)-hydroxy-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 117);

6-(2(*R*)-(1(*S*)-Hydroxy-2,2,2-trifluoroethyl)-4(*S*)-fluoro-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 118);

6-(2(*R*)-(1(*R*)-Hydroxy-2,2,2-trifluoroethyl)-4(*S*)-fluoro-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 119);

6-(2(*R*)-(1(*S*)-Hydroxy-2,2,2-trifluoroethyl)-4(*R*)-methyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 120);

6-(2(*R*)-(1(*R*)-Hydroxy-2,2,2-trifluoroethyl)-4(*R*)-methyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 121);

- 6-(2(R)-(1(S)-Hydroxy-2,2,2-trifluoroethyl)-4(S)-methyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1H)-quinolinone (Compound 122);
- 6-(2(R)-(1(R)-Hydroxy-2,2,2-trifluoroethyl)-4(S)-methyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1H)-quinolinone (Compound 123);
- 6-(2(R)-(1(S)-Hydroxy-2,2,2-trifluoroethyl)-4(R)-methoxy-1-pyrrolidinyl)-4-trifluoromethyl-2(1H)-quinolinone (Compound 124);
- 6-(2(R)-(1(R)-Hydroxy-2,2,2-trifluoroethyl)-4(R)-methoxy-1-pyrrolidinyl)-4-trifluoromethyl-2(1H)-quinolinone (Compound 125);
- 6-(2(R)-(1(R)-Hydroxy-2,2,2-trifluoroethyl)-4(S)-methoxy-1-pyrrolidinyl)-4-trifluoromethyl-2(1H)-quinolinone (Compound 126);
- 6-(2(R)-(1(S)-Hydroxy-2,2,2-trifluoroethyl)-4(S)-methoxy-1-pyrrolidinyl)-4-trifluoromethyl-2(1H)-quinolinone (Compound 127);
- 4-Chloro-6-(2(R)-(1(S)-hydroxy-2,2,2-trifluoroethyl)-5(R)-methyl-1-pyrrolidinyl)-2(1H)-quinolinone (Compound 128);
- 4-Chloro-6-(2(R)-(1(R)-hydroxy-2,2,2-trifluoroethyl)-5(R)-methyl-1-pyrrolidinyl)-2(1H)-quinolinone (Compound 129);
- 4-Chloro-6-(2(R)-(1(S)-hydroxy-2,2,2-trifluoroethyl)-1-pyrrolidinyl)-2(1H)-quinolinone (Compound 130);
- 4-Chloro-6-(2(R)-(1(R)-hydroxy-2,2,2-trifluoroethyl)-1-pyrrolidinyl)-2(1H)-quinolinone (Compound 131);
- 6-(2(R)-(1(R)-Hydroxy-1-methyl-2,2,2-trifluoroethyl)-5(R)-methyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1H)-quinolinone (Compound 132);
- 6-(2(R)-(1(S)-Hydroxy-1-methyl-2,2,2-trifluoroethyl)-5(R)-methyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1H)-quinolinone (Compound 133);
- 6-(2(R)-(1-Hydroxy-1-trifluoromethyl-2,2,2-trifluoroethyl)-5(R)-methyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1H)-quinolinone (Compound 134);
- 6-(2(R)-(1(R)-Ethoxy-2,2,2-trifluoroethyl)-1-pyrrolidinyl)-4-trifluoromethyl-2(1H)-quinolinone (Compound 135);
- 6-(2(R)-(1(R)-Hydroxy-2,2,2-trifluoroethyl)-1-pyrrolidinyl)-4-propyl-2(1H)-quinolinone (Compound 136);

6-(2(*R*)-(1(*S*)-Hydroxy-2,2,2-trifluoroethyl)-1-pyrrolidinyl)-4-propyl-2(1*H*)-quinolinone (Compound 137);

6-(2(*R*)-(1(*S*)-Hydroxy-2,2,2-trifluoroethyl)-1-pyrrolidinyl)-4-ethyl-2(1*H*)-quinolinone (Compound 138);

6-(2(*R*)-(1(*R*)-Hydroxy-2,2,2-trifluoroethyl)-1-pyrrolidinyl)-4-ethyl-2(1*H*)-quinolinone (Compound 139);

6-(2(*R*)-Chloromethyl-5-(*R*)-methyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 140);

6-(2(*R*)-Chloromethyl-5-(*S*)-methyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 141);

6-(2(*R*)-(1(*S*)-Hydroxy-2,2,2-trifluoroethyl)-5(*S*)-phenyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 142);

6-(2(*R*)-(1(*R*)-Hydroxy-2,2,2-trifluoroethyl)-5(*S*)-phenyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 143);

6-(2(*R*)-(1(*S*)-Hydroxy-2,2,2-trifluoroethyl)-5,5-dimethyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 144);

6-(2(*R*)-(1(*R*)-Hydroxy-2,2,2-trifluoroethyl)-5,5-dimethyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 145);

6-(2(*R*)-(1(*S*)-Hydroxy-2,2,2-trifluoroethyl)-5(*R*)-phenyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 146);

6-(2(*R*)-(1(*R*)-Hydroxy-2,2,2-trifluoroethyl)-5(*R*)-phenyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 147);

6-(2(*R*)-(1(*R*),2-Dihydroxyethyl)-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 148);

6-(2(*R*)-(1(*S*),2-dihydroxyethyl)-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 149);

6-(2(*R*)-(1(*R*)-Hydroxybenzyl)-5(*S*)-methyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 150);

6-(2(*R*)-(1(*S*)-Hydroxybenzyl)-5(*R*)-methyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 151);

6-(2(*R*)-(1(*R*)-Hydroxybenzyl)-5(*R*)-methyl-1-pyrrolidiny)-4-trifluoromethyl-2(1H)-quinolinone (Compound 152);

6-(2(*R*)-((2-1,3-Dithianyl)-1(*R*)-hydroxymethyl)-5(*R*)-methyl-1-pyrrolidiny)-4-trifluoromethyl-2(1H)-quinolinone (Compound 153);

6-(2(*R*)-((2-1,3-Dithianyl)-1(*S*)-hydroxymethyl)-5(*R*)-methyl-1-pyrrolidiny)-4-trifluoromethyl-2(1H)-quinolinone (Compound 154);

6-(2(*R*)-Difluoromethyl-5,5-dimethyl-1-pyrrolidiny)-4-trifluoromethyl-2(1H)-quinolinone (Compound 155);

6-(2(*R*)-Fluoromethyl-5,5-dimethyl-1-pyrrolidiny)-4-trifluoromethyl-2(1H)-quinolinone (Compound 156);

6-(2(*R*)-Hydroxymethyl-5,5-dimethyl-1-pyrrolidiny)-4-trifluoromethyl-2(1H)-quinolinone (Compound 157);

6-(2(*R*)-Hydroxymethyl-1-piperidiny)-4-trifluoromethyl-2(1H)-quinolinone (Compound 158);

6-(2(*R*)-(1(*S*)-Hydroxyethyl-1-piperidiny)-4-trifluoromethyl-2(1H)-quinolinone (Compound 159);

6-(2(*R*)-(1(*R*)-Hydroxyethyl-1-piperidiny)-4-trifluoromethyl-2(1H)-quinolinone (Compound 160);

6-(2(*R*)-Trifluoroacetyl-1-piperidiny)-4-trifluoromethyl-2(1H)-quinolinone (Compound 161);

6-(2(*R*)-(1(*S*)-Hydroxypentyl-1-piperidiny)-4-trifluoromethyl-2(1H)-quinolinone (Compound 162);

6-(2(*R*)-(1(*R*)-Hydroxypentyl-1-piperidiny)-4-trifluoromethyl-2(1H)-quinolinone (Compound 163);

6-(2(*R*)-(1(*R*)-Hydroxyethyl)-5(*R*)-methyl-1-pyrrolidiny)-4-trifluoromethyl-2(1H)-quinolinone (Compound 164);

6-(2(*R*)-(1-Hydroxy-1-methylethyl)-5(*R*)-methyl-1-pyrrolidiny)-4-trifluoromethyl-2(1H)-quinolinone (Compound 165);

6-(2(*R*)-(1(*S*)-Hydroxy-1-cyclopropylmethyl)-5(*R*)-methyl-1-pyrrolidiny)-4-trifluoromethyl-2(1H)-quinolinone (Compound 166);

- 6-(2(R)-(1(R)-Hydroxy-1-cyclopropylmethyl)-5(R)-methyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1H)-quinolinone (Compound 167);
- 6-(2(R)-(1(S)-Hydroxypropyl)-5(R)-methyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1H)-quinolinone (Compound 168);
- 6-(2(R)-(1(R)-Hydroxypropyl)-5(S)-methyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1H)-quinolinone (Compound 169);
- 6-(2(R)-(1(R)-Hydroxypropyl)-5(R)-methyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1H)-quinolinone (Compound 170);
- 6-(2(R)-(1(S)-Hydroxypropyl)-5(S)-methyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1H)-quinolinone (Compound 171);
- 6-(2(R)-(1(R)-Hydroxy-2-methylpropyl)-5(R)-methyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1H)-quinolinone (Compound 172);
- 6-(2(R)-(1(R)-Hydroxy-2-acetoxyethyl)-1-pyrrolidinyl)-4-trifluoromethyl-2(1H)-quinolinone (Compound 173);
- 6-(2(R)-(1(R)-Hydroxy-2-chloroethyl)-1-pyrrolidinyl)-4-trifluoromethyl-2(1H)-quinolinone (Compound 174);
- 6-(2(R)-(2-Hydroxyethyl)-1-pyrrolidinyl)-4-trifluoromethyl-2(1H)-quinolinone (Compound 175);
- 6-(2(R)-(2-Oxoethyl)-1-pyrrolidinyl)-4-trifluoromethyl-2(1H)-quinolinone (Compound 176);
- 6-(2(R)-Acetyloxymethyl-6(R)-methyl-1-piperidinyl)-4-trifluoromethyl-2(1H)-quinolinone (Compound 177);
- 6-(2(R)-(1(R)-Chloro-2-hydroxymethyl)-1-pyrrolidinyl)-4-trifluoromethyl-2(1H)-quinolinone (Compound 178);
- 6-(2(R)-Hydroxymethyl-6(R)-methyl-1-piperidinyl)-4-trifluoromethyl-2(1H)-quinolinone (Compound 179);
- 6-(2(R)-(1(R)-Hydroxy-2,2,2-trifluoroethyl)-6(R)-methyl-1-piperidinyl)-4-trifluoromethyl-2(1H)-quinolinone (Compound 180);
- 6-(2(R)-(1(S)-Hydroxy-2,2,2-trifluoroethyl)-5(R)-methyl-1-pyrrolidinyl)-4-chlorodifluoromethyl-2(1H)-quinolinone (Compound 181);

6-(2(*R*)-(1(*R*)-Hydroxy-2,2,2-trifluoroethyl)-5(*R*)-methyl-1-pyrrolidinyl)-4-chlorodifluoromethyl-2(1*H*)-quinolinone (Compound 182);

6-(2(*R*)-(1(*S*)-Hydroxy-2,2,2-trifluoroethyl)-5(*S*)-methyl-1-pyrrolidinyl)-4-chlorodifluoromethyl-2(1*H*)-quinolinone (Compound 183);

6-(2(*R*)-(2(*S*)-Hydroxy-3,3,3-trifluoropropyl)-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 184);

6-(2(*R*)-(2(*R*)-hydroxy-3,3,3-trifluoropropyl)-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 185);

6-(2(*R*)-Acetyloxymethyl-6(*R*)-methyl-1-piperidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 186);

6-(2(*R*)-Hydroxyethyl-5(*R*)-methyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 187);

6-(2(*R*)-Hydroxyethyl-5(*S*)-methyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 188);

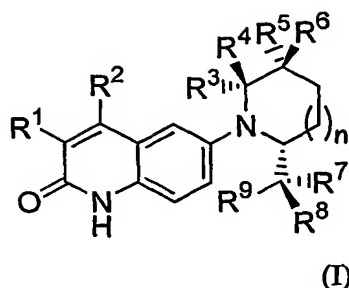
6-(2(*R*)-Acetyloxyethyl-5(*R*)-methyl-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 189);

6-(2(*R*)-(1(*S*)-Hydroxy-2,2,2-trifluoroethyl)-4(*S*)-fluoro-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 190); and

6-(2(*R*)-(1(*R*)-Hydroxy-2,2,2-trifluoroethyl)-4(*S*)-fluoro-1-pyrrolidinyl)-4-trifluoromethyl-2(1*H*)-quinolinone (Compound 191).

23. A pharmaceutical composition according to claim 14, wherein the composition is formulated for oral, topical, intravenous, suppository or parenteral administration.

24. A pharmaceutical agent comprising a pharmaceutically acceptable carrier and a compound of the formula:



wherein:

R^1 is hydrogen, F, Cl, or C_1 - C_3 aliphatic;

R^2 is selected from the group of hydrogen, F, Cl, Br, C_1 - C_4 aliphatic, C_1 - C_4 haloaliphatic, and C_1 - C_4 heteroaliphatic;

R^3 and R^4 each independently is selected from the group of hydrogen, C_1 - C_4 aliphatic, C_1 - C_4 haloaliphatic, C_1 - C_4 heteroaliphatic, optionally substituted aryl and heteroaryl;

R^5 and R^6 each independently is selected from the group of hydrogen, F, Cl, OR^{10} , C_1 - C_4 aliphatic, C_1 - C_4 haloaliphatic, and C_1 - C_4 heteroaliphatic;

R^7 and R^8 each independently is selected from the group of hydrogen, F, Cl, C_1 - C_4 aliphatic, C_1 - C_4 haloaliphatic, and C_1 - C_4 heteroaliphatic; or

R^7 and R^8 taken together form a carbonyl group;

R^9 is selected from the group of halogen, OR^{10} , SR^{10} , $NR^{10}R^{11}$, C_1 - C_4 haloaliphatic, C_1 - C_4 heteroaliphatic, and C_1 - C_4 heterohaloaliphatic;

R^{10} and R^{11} each independently is selected from the group of hydrogen, C_1 - C_4 aliphatic, phenyl, and benzyl; and

$n = 0$ or 1 .

25. A method of modulating androgen receptor activity in a mammal, comprising administering to said mammal a pharmaceutically effective amount of a compound according to claim 1.

26. A method for modulating a process in a mammal mediated by androgen receptor, comprising administering to said mammal a pharmaceutically effective amount of a compound according to claim 1.

27. A method according to claim 24, wherein said mammal has a condition mediated by an androgen receptor.

28. A method according to claim 26, wherein said condition is selected from the group of acne, male-pattern baldness, impotence, sexual dysfunction, wasting diseases, frailty, hirsutism, hypogonadism, prostatic hyperplasia, osteoporosis, cancer cachexia and hormone-dependent cancers.

29. A method according to claim 26, wherein said condition is susceptible to treatment with a therapy selected from the group of male hormone replacement therapy, female androgen replacement therapy and stimulation of hematopoiesis.